

**Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services**

**STATEMENT OF BASIS**

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**Morgan City Steam Power Plant**  
**Louisiana Energy and Power Authority (LEPA)**  
**Morgan City, St. Mary Parish, Louisiana**  
**Agency Interest Number: 26326**  
**Activity Number: PER20030001 and PER20030002**  
**Draft Permit 2660-00006-V1 and 2660-00006-IV1**

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**I. APPLICANT:**

**Company:**  
Louisiana Energy and Power Authority (LEPA)  
210 Venture Way  
Lafayette, LA 70549

**Facility:**  
Morgan City Steam Power Plant  
701 Avoca Rd.  
Morgan City, LA 70308

Approximate UTM coordinates are 675.20 kilometers East and 3285.80 kilometers North, Zone 15

**II. FACILITY AND CURRENT PERMIT STATUS:**

Louisiana Energy and Power Authority (LEPA)'s Morgan City Steam Power Plant is an electric generation facility owned by the City of Morgan City and operated by Louisiana Energy and Power Authority. The facility is currently operating under Permit number 2660-00006-V0, issued April 22, 1999.

**III. PROPOSED PERMIT / PROJECT INFORMATION:**

**Proposed Permit**

A permit application and Emission Inventory Questionnaire requesting a Part 70 and Acid Rain renewal was submitted by Morgan City Steam Power Plant on October 22, 2003. Additional information dated April 15, 2004 was also received.

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Draft Permit 2660-00006-V1**

**Project description**

Morgan City Steam Power Plant consists of four boilers, which burn natural gas, and three cooling towers. Boiler No. 4 is the main operating unit at the plant. Fuel combustion is the primary source of air emissions from the facility.

**Permitted Air Emissions**

The estimated permitted emissions from the new facility in tons per year are as follows:

<b>Pollutant</b>	<b>Before</b>	<b>After</b>	<b>Change</b>
PM <sub>10</sub>	51.48	68.03	+16.55
SO <sub>2</sub>	1.91	2.06	+0.15
NO <sub>x</sub>	1,509.42	834.07	-675.35
CO	124.60	288.76	+164.16*
VOC	5.34	18.91	+13.57

\*Emissions increase due to change in emission factors.

**VOC LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs):**

<b>Pollutant</b>	<b>Emissions (TPY)</b>
Benzene	0.008
Formaldehyde	0.258
n-Hexane	6.187
Toluene	0.011
Dichlorobenzene	0.003
Total	6.467

**Regulatory Analysis**

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, and New Source Performance Standards (NSPS). NESHAP and Prevention of Significant Deterioration (PSD) do not apply.

The facility is would be a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51; however, electric utility steam generating units are currently exempted per LAC 33:III.5105.B.2.

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**Louisiana Air Quality Regulations and NSPS**

The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the draft permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the draft permit.

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**Prevention of Significant Deterioration Applicability**

PSD does not apply. No physical changes or changes in the method of operation are being proposed.

**General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to Section VIII of the draft Part 70 permit.

**Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to Section IX of the draft Part 70 permit.

**IV. PERMIT SHIELDS**

A permit shield was not requested.

**V. PERIODIC MONITORING**

A CEMS is installed on Boiler C4 to monitor NO<sub>x</sub>.

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VI. APPLICABILITY AND EXEMPTIONS OF SELECTED SUBJECT ITEMS		
ID No:	Requirement	Notes
Facility Wide	Chemical Accident Prevention and Minimization of Consequences, LAC 33:III.Chapter 59	Does Not Apply. Threshold quantities are currently not exceeded; however, within one year of the date on which major stationary source becomes subject to this Chapter after January 31, 1995, the owner or operator of each major stationary source covered by this Chapter shall register with the administrative authority.
	Chemical Accident Prevention Provision 40 CFR 68	Does Not Apply. Threshold quantities are not exceeded.
C1 Boiler No. 1	Acid Rain Program (40 CFR 72)	Does Not Apply. Nameplate rating <25 MW
	NSPS Subpart D- Standards of Performance for Fossil fuel Fired Steam Generators for Which construction is Commenced After August 17, 1971.	Does Not Apply. Unit was installed in 1962 and has not been modified.
C2 Boiler No. 2	NSPS Subpart Da- Standards of Performance for Fossil Fuel Fired Steam Generating Units for Which Construction is Commenced After September 18, 1978.	Does Not Apply. Unit was installed in 1962 and has not been modified.
	Acid Rain Program (40 CFR 72)	Does Not Apply. Nameplate rating <25 MW
	NSPS Subpart D- Standards of Performance for Fossil fuel Fired Steam Generators for Which construction is Commenced After August 17, 1971.	Does Not Apply. Unit was installed in 1962 and has not been modified.

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VI. APPLICABILITY AND EXEMPTIONS OF SELECTED SUBJECT ITEMS			
ID No:	Requirement		Notes
C2 Boiler No. 2 Cont.	NSPS Subpart Da- Standards of Performance for Fossil Fuel Fired Steam Generating Units for Which Construction is Commenced After September 18, 1978.	Does Not Apply. Unit was installed in 1962 and has not been modified.	
C3 Boiler No. 3	Acid Rain Program (40 CFR 72)	Does Not Apply. Nameplate rating <25 MW	
	NSPS Subpart D- Standards of Performance for Fossil fuel Fired Steam Generators for Which construction is Commenced After August 17, 1971.	Does Not Apply. Unit was installed in 1970 and has not been modified.	
C4 Boiler No. 4	NSPS Subpart Da- Standards of Performance for Fossil Fuel Fired Steam Generating Units for Which Construction is Commenced After September 18, 1978.	Does Not Apply. Unit was installed in 1970 and has not been modified.	
	NSPS Subpart Da- Standards of Performance for Fossil Fuel Fired Steam Generating Units for Which Construction is Commenced After September 18, 1978.	Does Not Apply. Unit was installed in 1974 and has not been modified.	

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**Glossary**

Best Available Control Technologies (BACT) - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring rule – A federal air regulation under 40 CFR Part 64

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

Hydrogen Sulfide (H<sub>2</sub>S) - A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the action of acids on metallic sulfides, and is an important chemical reagent.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

NESHAP - National Emission Standards for Hazardous Air Pollutants – Toxic air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63

Nitrogen Oxides (NO<sub>x</sub>) - Compounds whose molecules consists of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to

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ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

NSPS - New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60

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Organic Compound - Any compound of carbon and another element. Examples: Methane (CH<sub>4</sub>), Ethane (C<sub>2</sub>H<sub>6</sub>), Carbon Disulfide (CS<sub>2</sub>)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub>- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO<sub>2</sub>) – An oxide of sulphur.

TAP - Toxic Air Pollutant (LDEQ acronym for air pollutants regulated under LAC 33 Part III, Chapter 51, Tables 1 through 3

Title V permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.